IN THE CLAIMS:

Please amend the claims to read as follows. The following is a complete listing of all claims and replaces any prior listing in this application.

1. (currently amended) ~~A system for calculating the contribution of each of a plurality of variables in a statistical model including a scoring formula for generating a score comprising a database for storing values associated with at least some of the plurality of variables, means for calculating a slope for any of the plurality of variables, means for calculating a deviance value for any of the plurality of variables and means for calculating the contribution of any of the plurality of variables based on the calculated slope and deviance values.~~

A system for calculating the contribution of individual variables in a scoring formula comprising a multivariate expression, comprising:

a database for storing values associated with a set of variables;

at least one processor for:

generating a multivariate statistical model from the values in the database and a scoring formula based thereon;

calculating a partial derivative of the scoring formula with respect to any of the plurality of variables;

calculating a deviance value for any of the plurality of variables; and

calculating the contribution of any of the plurality of variables based on the calculated partial derivative and deviance values.

2. (currently amended) The system of claim 1 wherein the ~~means for calculating the slope~~ **processor** comprises a software module that takes the first derivative of the scoring formula with respect to the variable being analyzed.

3. (original) The system of claim 1 wherein the plurality of variables describe characteristics of at least one of an existing policyholder and potential policyholder and the scoring formula is used to generate a score reflective of the expected loss/premium ratio for an insurance policy.

4. (original) The system of claim 3 wherein the premium for the insurance policy is based on the score.

5. (original) The system of claim 1 further comprising means for ranking the individual variables based on the calculated contribution.

6. (currently amended) The system of claim 1 wherein the **processor** ~~means for calculating a deviance value~~ includes a software module that receives inputs for a mean value and a standard deviation value and the deviance value is calculated using the formula:

$$\text{Deviance of } x_i = (x_i - \mu_i)/\sigma_i$$

where μ_i is the mean for x_i and σ_i is the standard deviation for predicitve variable x_i.

7. (original) The system of claim 1 wherein the contribution is calculated for any of the plurality of variables by multiplying the slope and deviance values.

8. (currently amended) ~~In a system that employs a statistical model comprised of a scoring formula having a plurality of predictive variables for generating a score that is representative of a risk associated with an insurance policyholder, a~~

A method of evaluating the contribution of each of the plurality of predictive variables to ~~the~~ score **generated by a multivariate statistical** ~~the~~ model, comprising:

generating a multivariate statistical model from a set of values associated with a set of variables;

generating a scoring formula based thereon;

calculating a partial derivative of the scoring formula with respect to any of the plurality of variables;

~~calculating a slope value for each of the plurality of variables;~~

populating a database associated with the system with a mean value and standard deviation value for each of the plurality of predictive variables;

calculating a deviance value based on the mean value and the standard deviation value for each of the plurality of predictive variables; and

multiplying the deviance value and partial derivative value for each of the plurality of predictive variables to determine the contribution of each of the plurality of predictive variables to the score.

9. (original) The method of claim 8 further comprising the step of defining at least one assumption for the mean value associated with at least one of the plurality of predictive variables.

10. (original) The method of claim 8 wherein the step of calculating the slope further comprises the step of calculating the first derivative of the scoring formula with respect to the predictive variable of the plurality of predictive variables that is being analyzed.

11. (original) The method of claim 8 wherein the deviance value is calculated as follows:

$$\text{Deviance of } x_i = (x_i - \mu_i)/\sigma_i$$

where μ_i is the mean for x_i and σ_i is the standard deviation for predicitve variable x_i.

12. (original) The method of claim 8 further comprising the step of ranking each of the plurality of predictive variables based on the contribution of a predictive variable to the score wherein a predictive variable having a higher calculated contribution value is assumed to have had a greater effect on the score.

13. (original) A method of evaluating the contribution of each of the plurality of variables in a statistical model comprised of a scoring formula having at least one value associated with each of the plurality of variables comprising the steps of obtaining a mean value and a standard deviation value for each of the plurality of variables, calculating a slope value for each of the plurality of variables, calculating a deviance value based on the mean value and the standard deviation value for each of the plurality of variables, and multiplying the deviance value and

slope value for each of the plurality of variables to quantify the contribution of each of the plurality of variables to the score.

14. (original) The method of claim 13 further comprising the step of populating a storage means with the mean value and standard deviation values for each of the plurality of variables.

15. (original) The method of claim 13 wherein the statistical model is used to assess the profitability of an insurance policy and each of the plurality of variables is associated with at least one of the policyholder and item to be insured.

16. (original) The method of claim 15 wherein a score generated by the model determines the price for the insurance policy and the contribution is used to identify which variables had the greatest effect on the price.

17. (currently amended) In a system that employs a statistical model comprised of a scoring formula having a plurality of predictive variables for generating a score that is representative of a risk associated with an insurance policyholder and for pricing a particular coverage based on the score, a method of quantifying the contribution of each of the plurality of predictive variables to the score generated by the model comprising:

generating a multivariate statistical model from a set of values associated with insurance policy risk to identify predictive variables;

generating a profitability scoring formula based thereon expressed as a multivariate function;

~~the steps of~~ populating a database associated with the system with a mean value and a standard deviation value for each of the plurality of predictive variables;

calculating a slope value for each of the plurality of predictive variables;

calculating a deviance value based on the mean value and the standard deviation value for each of the plurality of predictive variables; and

multiplying the deviance value and slope value for each of the plurality of predictive variables to quantify the contribution of each of the plurality of predictive variables to the score.

18. (original) The method of claim 17 further comprising the step of ranking each of the plurality of variables based on the quantified contribution as calculated for each of the plurality of predictive variables.

19. (original) The method of claim 17 wherein the step of calculating the slope further comprises the step of calculating the first derivative of the scoring formula with respect to a predictive variable of the plurality of predictive variables that is being analyzed.

20. (original) The method of claim 17 wherein the deviance value is calculated as follows:

$$\text{Deviance of } x_i = (x_i - \mu_i)/\sigma_i$$

where μ_i is the mean for x_i and σ_i is the standard deviation for predicitve variable x_i.